Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A machining method for positioning a work and a tool in directions of X-, Y- and Z-axes perpendicular to one another and machining said work, comprising the steps of:

~~moving said work in each of said X- and Y-axis directions relatively to said Z-axis corresponding to an axis of said tool, prior to machining;~~

~~examining~~ obtaining positioning response ~~properties of said X- and Y-axis directions with respect to said Z-axis~~ data until stabilizing a position deviation within a predetermined allowable range from a command-reach time after moving said work in each of said X- and Y- axis directions relative to said Z-axis corresponding to an axis of said tool, prior to machining; and

determining a lowering timing of movement of ~~positioning~~ said tool in said Z-axis direction based on said obtained ~~data of said~~ positioning response ~~properties~~ data.

2. (Currently Amended) A machining method according to Claim 1, wherein a plurality of ~~measuring conditions for confirming said positioning response properties are established in advance~~ examination conditions for

movement in said X- and Y-axis directions for obtaining said positioning response data are predetermined.

3. (Currently Amended) A machining method according to Claim 2, wherein said ~~measuring~~ examination conditions clarify the dependence of at least one of a movement start point, a movement direction, a movement velocity, a movement acceleration and a movement distance.

4. (Currently Amended) A machining method according to Claim 2, wherein ~~said~~ positioning response ~~properties~~ data to be used during machining are selected from said obtained positioning response data in comparison between movement conditions to be used during machining and said ~~measuring~~ predetermined examination conditions.

5. (Currently Amended) A machining method according to Claim 1, wherein control parameters for movement in said X- and Y-axis directions that can change said positioning response properties are prepared in advance, ~~said control parameters are changed when said obtained data is out of a predetermined range, said positioning response properties are examined, and said tool is positioned in said z-axis direction based on said control parameters with which said obtained data is within said range~~ and such control parameters that said obtained positioning response data are within a predetermined range are used, or if said obtained positioning response data are not with said predetermined range, obtaining positioning response data is repeated by

changing said control parameters until said obtained positioning response data are within said predetermined range.

6. (Currently Amended) A machining method according to Claim 1, wherein at least one of a movement start time, a movement velocity and a movement start position with which said tool moves in said Z-axis direction is controlled based on said obtained positioning response ~~properties~~ data.

7. (Currently Amended) A machining method according to Claim 6, wherein said movement start position is ~~established~~ set to be shorter than a predetermined air-cut distance by a distance Lc obtained from an equation:

$$Lc=Vz(Ta-Ts)$$

using ~~a difference Tc between~~ movement time Ta, ~~and~~ stabilization time Ts and a lowering velocity Vz.

8. (Currently Amended) A machining method according to Claim 1, wherein an allowable range of stabilization is ~~established~~ set in accordance with machining accuracy, and said positioning response ~~properties~~ data in each of said X- and Y-axis directions with respect to said Z-axis are examined in said ~~established~~ allowable range of stabilization.

9. (Currently Amended) A machining method for positioning a work and a tool in directions of X-, Y- and Z-axes perpendicular to one another and machining said work, comprising the steps of:

setting an axis of said tool as said Z-axis, and obtaining a delay of Z-axis position response of a main shaft holding said tool, prior to machining; and

setting a movement start time ~~in~~ for said X- and Y-axes at a time point when time obtained by adding said delay of Z-axis position response of said main shaft to a command time required ~~for~~ from a forward end of said tool inside said work ~~to lift back~~ to a surface of said work has passed ~~since~~ from a time point when said forward end of said tool reached a cutting distance.

10. (Original) A machining method according to any one of Claims 1 to 9, wherein said tool is a drill.

11. (Original) A processing method according to any one of Claims 1 to 9, wherein said work is a printed wiring board.

12. (Currently Amended) A machining apparatus comprising:

moving means for moving a table and a main shaft relatively to each other in directions of X-, Y- and Z-axes perpendicular to one another, said table being mounted with a work, said main shaft holding a tool, said moving means being operated to machine said work;

drive means for moving said work in each of said X-axis direction and said Y-axis direction relatively to said Z-axis corresponding to an axis of said tool, prior to machining;

response property detecting means for ~~examining~~ obtaining positioning response ~~properties~~ data until stabilizing a position deviation within a predetermined allowable range from a command-reach time after moving said work in each of said X- and Y-axis directions with respect to said Z-axis corresponding to an axis of said tool, prior to machining; and

positioning control means for ~~positioning~~ determining a lowering timing of movement of said tool in said Z-axis direction based on said obtained ~~data for said~~ positioning response ~~properties~~ data.

13. (Currently Amended) A machining apparatus comprising:

moving means for moving a table and a main shaft relatively to each other in directions of X-, Y- and Z-axes perpendicular to one another, said table being mounted with a work, said main shaft holding a tool, said moving means being operated to machine said work;

program storage means for storing examination programs and machining programs;

analyzing means for reading said machining programs from said storage means and analyzing said ~~read~~ programs;

pattern storage means for storing a pattern and a stabilization time of predetermined moving operation;

pattern matching judging means for judging matching between moving operation analyzed by said analyzing means and said moving operation stored in said pattern storage means;

drive control means for moving said work and/or said tool in said X- and Y-axis directions;

command creating means for creating a Z-axis lowering command to said drive control means; and

response analyzing means for analyzing position response of said work and/or said tool in each of said axes driven by said drive control means;

wherein prior to machining, said table and said tool are moved in two directions perpendicular to said Z-axis corresponding to said main shaft under specified ~~measuring~~ examination conditions, a stabilization time required until position response of said moving means reaches and stays within a predetermined allowable range is obtained after a command-reach time of a positioning command, and at the time of machining, said tool is moved in said Z-axis direction based on said obtained stabilization time.

14. (Original) A machining apparatus according to Claim 12 or 13, further comprising:

parameter storage means for storing a set of predetermined control parameters;

wherein said drive control means acquires said control parameters from said parameter storage means, and moves said work and/or said tool in said X-axis direction and said Y-axis direction based on said control parameters.

15. (Previously Presented) A machining apparatus according to Claim 13, further comprising control means for examining positioning response properties with respect to said X- and Y-axis directions at a time of shipment, storing said stabilization time obtained thus into said pattern storage means, and comparing said stored stabilization time with a stabilization time examined after installation, so as to judge installation conditions.

16. (Original) A machining apparatus according to Claim 15, wherein said control means concludes that there is a trouble in a specific position of a base supporting said apparatus when said stabilization time varies widely in accordance with a coordinate value of a movement start point examined after installation.

17. (Original) A machining apparatus according to Claim 16, wherein said control means judges swinging of said apparatus based on magnitude of overshoot/undershoot of a response waveform and said stabilization time examined after installation, so as to estimate installation conditions and/or floor rigidity.

18. (Previously Presented) A machining apparatus according to Claim 12 or 13, wherein said tool is a drill.

19. (Previously Presented) A machining apparatus according to Claim 12 or 13, wherein said work is a printed wiring board.